

IN THE CLAIMS

Claim 1 (cancelled)

Claim 2 (cancelled)

Claim 3 (original): A tube electroforming method comprising the steps of: forming an electrodeposit material or a surrounding material around a thin wire material by electroforming; and removing the thin wire material from the electrodeposit material or the surrounding material,

wherein the thin wire material is removed by pulling the material from one end or both ends, deforming the material so as to reduce a sectional area thereof, and forming a clearance between the thin wire material and the electrodeposit material or the surrounding material, followed by gripping and pulling the thin wire material, sucking the material, physically pushing away the material, or blowing a gas or a liquid to push away the material.

Claim 4 (original): The tube electroforming method according to claim 3,

wherein an amount of an end-portion-side electrodeposit or surrounding material to be formed on the thin wire material is increased.

Claim 5 (original): The tube electroforming method according to claim 3,

wherein a deformation amount of a lateral distortion at a time when the thin wire material is pulled and extended outwards is 5% or more of the sectional area.

Claim 6 (cancelled)

Claim 7 (currently amended): The tube electroforming method

according to claim 3,~~4 or 5~~,

wherein the thin wire material including a conductive layer disposed on an outer surface thereof is used, and the thin wire material is removed so that the conductive layer remains on an inner surface of a tube by electroforming.

Claim 8 (currently amended): The tube electroforming method according to claim 3,~~4 or 5~~,

wherein the thin wire material is used in which at least two conductive layers constituted of different materials are formed on an outer surface of the material, the electrodeposit material or the surrounding material is brought into close contact with the outer conductive layer of the thin wire material, and the thin wire material is removed so that the inner conductive layer remains on an inner surface of the tube by electroforming.

Claim 9 (currently amended): The tube electroforming method according to claim 3,~~4, 5, 7 or 8~~,

wherein an inner shape of a hollow portion formed by removing the thin wire material from the electrodeposit material or the surrounding material has a circular sectional shape or a polygonal sectional shape.

Claim 10 (currently amended): The tube electroforming method according to claim 3,~~4, 5, 7, 8 or 9~~,

wherein the tube by electroforming includes a plurality of hollow portions formed by removing the thin wire material.

Claim 11 (original): The tube electroforming method according to claim 10,

wherein a partition wall member formed by disposing a conductive layer on an outer surface of an insulating material is disposed between the hollow portions, whereby each portion forming a periphery of each hollow portion independently conducts electricity.

Claim 12 (original): A tube by electroforming produced by forming an electrodeposit material or a surrounding material around a thin wire material by electroforming, and removing the thin wire material from the electrodeposit material or the surrounding material,

wherein a hollow portion is formed by removing the thin wire material from the electrodeposit material or the surrounding material, an inner diameter of the hollow portion is 10  $\mu\text{m}$  or more and 85  $\mu\text{m}$  or less, when an inner shape of the hollow portion has a circular sectional shape, a diameter of an inscribed circle of the hollow portion is 10  $\mu\text{m}$  or more and 85  $\mu\text{m}$  or less, when the inner shape of the hollow portion has a polygonal sectional shape,

there are a plurality of hollow portions formed by removing the thin wire material, and

a partition wall member formed by disposing a conductive layer on an outer surface of an insulating material is disposed between the hollow portions, whereby each portion forming a periphery of each hollow portion independently conducts electricity.

Claim 13 (original): The tube by electroforming according to claim 12, having a thickness of 5  $\mu\text{m}$  or more and 50  $\mu\text{m}$  or less.

Claim 14 (currently amended): The tube by electroforming according to claim 12 ~~or 13~~, having an inner surface provided with a conductive layer constituted of a material different from that of the electrodeposit material or the surrounding material.

Claim 15 (currently amended): The tube by electroforming according to claim 12 ~~or 13~~, having an inner surface of the tube provided with a conductive layer constituted of a material different from that of the electrodeposit material or the surrounding material, a further conductive layer constituted of a material different from that of the conductive layer being disposed between the

electrodeposit material or the surrounding material and the conductive layer.

Claim 16 (cancelled)

Claim 17 (cancelled)

Claim 18 (currently amended): The tube by electroforming according to claim 12, ~~13, 14 or 15~~, wherein the conductive layer disposed on the outer surface of the partition wall member is constituted to form a part of the hollow portion.

Claim 19 (currently amended): The tube by electroforming according to claim 12, ~~13, 14, 15 or 18~~, wherein a portion of the partition wall member disposed between the hollow portions disposed adjacent to each other has a thickness of 5  $\mu\text{m}$  or more and 50  $\mu\text{m}$  or less.

Claim 20 (original): A thin wire material for production of a tube by electroforming produced by forming an electrodeposit material or a surrounding material around the thin wire material by electroforming, and removing the thin wire material from the electrodeposit material or the surrounding material,

wherein an outer diameter of the thin wire material is 10  $\mu\text{m}$  or more and 85  $\mu\text{m}$  or less, when an outer shape of the thin wire material has a circular sectional shape, a diameter of an inscribed circle is 10  $\mu\text{m}$  or more and 85  $\mu\text{m}$  or less, when the outer shape of the thin wire material has a polygonal sectional shape, and a deformation amount of a lateral distortion at a time when the thin wire material is pulled and extended outwards is 5% or more of a sectional area.

Claim 21 (cancelled)

Claim 22 (cancelled)

Claim 23 (cancelled)

Claim 24 (cancelled)

Claim 25 (original): A thin wire material for production of a tube by electroforming produced by forming an electrodeposit material or a surrounding material around the thin wire material by electroforming, pulling the thin wire material from one end or both ends to deform the material so that a sectional area thereof is reduced, forming a clearance between the thin wire material and the electrodeposit material or the surrounding material to extract the thin wire material, and removing the thin wire material from the electrodeposit material or the surrounding material to produce a tube by electroforming,

wherein an outer diameter of the thin wire material is 10  $\mu\text{m}$  or more and 85  $\mu\text{m}$  or less, when an outer shape of the thin wire material has a circular sectional shape, a diameter of an inscribed circle is 10  $\mu\text{m}$  or more and 85  $\mu\text{m}$  or less, when the outer shape of the thin wire material has a polygonal sectional shape, and a deformation amount of a lateral distortion at a time when the thin wire material is pulled and extended outwards is 5% or more of the sectional area.

Claim 26 (currently amended): The thin wire material for the production of the tube by electroforming according to claim 20 ~~or~~ 25, having an outer surface provided with a conductive layer constituted of a material different from that of the electrodeposit material or the surrounding material.

Claim 27 (currently amended): The thin wire material for the production of the tube by electroforming according to claim 20 ~~or~~ 25, having an outer surface of the material provided with a conductive layer constituted of a material different from that of

the electrodeposit material or the surrounding material, a further conductive layer constituted of a material different from that of the conductive layer being disposed between a base member of the thin wire material and the conductive layer.

Claim 28 (currently amended): The thin wire material for the production of the tube by electroforming according to claim 20,~~25~~,~~26~~,~~27~~ or ~~28~~, wherein there are opposite end portions on which any conductive layer is not disposed.

Claim 29 (currently amended): The thin wire material for the production of the tube by electroforming according to claim 20,~~25~~,~~26~~,~~27~~ or ~~28~~, having an outer shape formed into a circular sectional shape or a polygonal sectional shape.

Claim 30 (original): A tube by electroforming produced by forming an electrodeposit material or a surrounding material around the thin wire material by electroforming, and removing the thin wire material from the electrodeposit material or the surrounding material,

wherein a hollow portion is formed by removing the thin wire material from the electrodeposit material or the surrounding material, an inner diameter of the hollow portion is 10  $\mu\text{m}$  or more and 85  $\mu\text{m}$  or less, when an inner shape of the hollow portion has a circular sectional shape, and a diameter of an inscribed circle of the hollow portion is 10  $\mu\text{m}$  or more and 85  $\mu\text{m}$  or less, when the inner shape of the hollow portion has a polygonal sectional shape.

Claim 31 (original): A tube by electroforming produced by forming an electrodeposit material or a surrounding material around the thin wire material by electroforming, pulling the thin wire material from one end or both ends to deform the material so that a sectional area thereof is reduced, forming a clearance between the thin wire material and the electrodeposit material or the

surrounding material to extract the thin wire material, and removing the thin wire material from the electrodeposit material or the surrounding material,

wherein a hollow portion is formed by removing the thin wire material from the electrodeposit material or the surrounding material, an inner diameter of the hollow portion is 10  $\mu\text{m}$  or more and 85  $\mu\text{m}$  or less, when an inner shape of the hollow portion has a circular sectional shape, and a diameter of an inscribed circle of the hollow portion is 10  $\mu\text{m}$  or more and 85  $\mu\text{m}$  or less, when the inner shape of the hollow portion has a polygonal sectional shape.

Claim 32 (currently amended): The tube by electroforming according to claim 30 ~~or 31~~, having a thickness of 5  $\mu\text{m}$  or more and 50  $\mu\text{m}$  or less.

Claim 33 (currently amended): The tube by electroforming according to claim 30, ~~31 or 32~~, having an inner surface provided with a conductive layer constituted of a material different from that of the electrodeposit material or the surrounding material.

Claim 34 (currently amended): The tube by electroforming according to claim 30, ~~31 or 32~~, having an inner surface provided with a conductive layer constituted of a material different from that of the electrodeposit material or the surrounding material, a further conductive layer constituted of a material different from that of the conductive layer being disposed between the electrodeposit material or the surrounding material and the conductive layer.

Claim 35 (currently amended): The tube by electroforming according to claim 31, ~~32, 33 or 34~~, wherein there are a plurality of hollow portions formed by removing the thin wire material.